

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1. (Original): A method for the treatment of a severe form of bone loss diseases in a patient in need of such treatment which comprises administering an effective amount of a c

Claim 2. (Original): The use of a cathepsin K inhibitor in the preparation of a medicament for the treatment of a severe form of bone loss diseases.

Claim 3. (Original): A pharmaceutical composition which incorporates as an active agent a cathepsin K inhibitor for use in the treatment of a severe form of bone loss diseases.

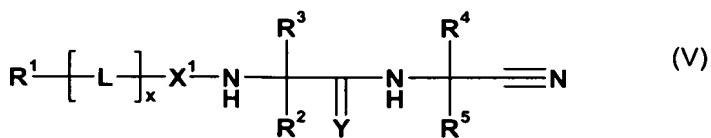
Claim 4. (Currently amended): A method, use or composition according to ~~any preceding~~ claims 1, wherein the cathepsin K inhibitors are used to stimulate bone growth in a patient in need of such a treatment.

Claim 6-5. (Currently amended): A method, use or composition according to ~~any preceding~~ claims 1, wherein the diseases are a severe form of osteoporosis, osteoarthritis or bone metastasis.

Claim 7-6. (Currently amended): A method, use or composition according to ~~any preceding~~ claims 1, wherein the disease is severe osteoporosis.

Claim 8-7. (Currently amended): A method, use or composition according to ~~any preceding~~ claims 1, wherein the disease is severe osteoporosis in postmenopausal women.

Claim 9-8. (Currently amended): A method, use or composition according to ~~any preceding~~ claims 1, in which the cathepsin K inhibitor is selected from the following compounds of formula V or a pharmaceutically acceptable salt thereof, or any hydrate thereof



wherein

R<sup>1</sup> is optionally substituted (aryl, aryl-lower alkyl, lower alkenyl, lower alkynyl, heterocyclyl or heterocyclyl-lower alkyl);

R<sup>2</sup> and R<sup>3</sup> together represent lower alkylene, optionally interrupted by O, S or NR<sup>6</sup>, so as to form a ring with the carbon atom to which they are attached, and R<sup>6</sup> is hydrogen, lower alkyl or aryl-lower alkyl;

R<sup>4</sup> and R<sup>5</sup> are independently H, or optionally substituted (lower alkyl or aryl-lower alkyl), -C(O)OR<sup>7</sup>, or -C(O)NR<sup>7</sup>R<sup>8</sup>, wherein R<sup>7</sup> is optionally substituted (lower alkyl, aryl, aryl-lower alkyl, cycloalkyl, bicycloalkyl, bicycloalkyl or heterocyclyl), and R<sup>8</sup> is H, or optionally substituted (lower alkyl, aryl, aryl-lower alkyl, cycloalkyl, bicycloalkyl, bicycloalkyl or heterocyclyl); or

R<sup>4</sup> and R<sup>5</sup> together represent lower alkylene, optionally interrupted by O, S or NR<sup>6</sup>, so as to form a ring with the carbon atom to which they are attached, and R<sup>6</sup> is hydrogen, lower alkyl or aryl-lower alkyl; or

R<sup>4</sup> is H or optionally substituted lower alkyl and R<sup>5</sup> is a substituent of formula -X<sup>2</sup>-(Y<sup>1</sup>)<sub>n</sub>-(Ar)<sub>p</sub>-Q-Z  
wherein

Y<sup>1</sup> is O, S, SO, SO<sub>2</sub>, N(R<sup>6</sup>)SO<sub>2</sub>, N-R<sup>6</sup>, SO<sub>2</sub>NR<sup>6</sup>, CONR<sup>6</sup> or NR<sup>6</sup>CO;

N is zero or one;

P is zero or one;

X<sup>2</sup> is lower alkylene: or when n is zero, X<sup>2</sup> is also C<sub>2</sub>-C<sub>7</sub>-alkylene interrupted by O, S, SO, SO<sub>2</sub>, NR<sup>6</sup>, SO<sub>2</sub>NR<sup>6</sup>, CONR<sup>6</sup> or NR<sup>6</sup>CO, and R<sup>6</sup> is hydrogen, lower alkyl or aryl-lower alkyl;

Ar is arylene;

Z is hydroxyl, acyloxy, carboxyl, esterified carboxyl, amidated carboxyl, aminosulfonyl, (lower alkyl or aryl-lower alkyl)aminosulfonyl, or (lower alkyl or aryl-lower alkyl)sufonylaminocarbonyl; or Z is tetrazolyl, triazolyl or imidazolyl;

Q is a direct bond, lower alkylene, Y<sup>1</sup>-lower alkylene or C<sub>2</sub>-C<sub>7</sub>-alkylene interrupted by Y<sup>1</sup>;

X<sup>1</sup> is -C(O)-, -C(S)-, -S(O)-, -S(O)<sub>2</sub>-, or -P(O)(OR<sup>6</sup>)-, and R<sup>6</sup> is as defined above;

Y is oxygen or sulphur;

L is optionally substituted -Het-, -Het-CH<sub>2</sub>- or -CH<sub>2</sub>-Het-, and Het is a hetero atom selected from O, N or S; and

X is zero or one; and

aryl in the above definitions represents carbocyclic or heterocyclic aryl.

**Claim 10-9.** (Currently amended): A method, use or composition according to ~~any preceding~~ claims 1, in which the cathepsin K inhibitor is N-[1-(cyanomethyl-carbamoyl)-cyclohexyl]-4-(4-propyl-piperazin-1-yl)-benzamide, or a pharmaceutically acceptable salt thereof, e.g. the maleate form, or any hydrate thereof.

**Claim 11-10.** (Currently amended): A pharmaceutical composition comprising less than 50.1 mg N-[1-(cyanomethyl-carbamoyl)-cyclohexyl]-4-(4-propyl-piperazin-1-yl)-benzamide or a pharmaceutically acceptable salt thereof wherein the amount of the base form is less than 50.1 mg.

**Claim 12-11.** (Currently amended): The pharmaceutical composition according to claim 11 comprising less than 64.2 mg N-[1-(cyanomethyl-carbamoyl)-cyclohexyl]-4-(4-propyl-piperazin-1-yl)-benzamide maleate.

**Claim 13-12.** (Currently amended): All novel compounds, processes, pharmaceutical compositions, methods and uses substantially as hereinbefore described with particular reference to the Examples.